

**Statement of Work  
for  
Rebuild of Radio Frequency Amplifier (AM-6545)  
NSN 5996-01-050-5881**

**SOW-04-C4I-8I420B-1/1**

**Prepared by  
Marine Corps Systems Command, Code C4I  
Marine Corps Logistics Bases, Albany, GA.**

**Table of Contents**

<b>Section/Para</b>	<b>Page</b>
1.0 SCOPE	1
1.1 Background	1
2.0 APPLICABLE DOCUMENTS	1
2.1 Military Standards	1
2.2 Other Government Documents and Publications	1
2.3 Industry Standards	2
3.0 REQUIREMENTS	3
3.1 General Tasks	3
3.2 Detail Tasks	3
3.2.1 Phase I - Pre-Induction	3
3.2.2 Phase II - Rebuild	3
3.2.3 Phase III - Inspection, Testing and Acceptance	4
3.2.4 Packaging, Handling, Storage and Transportation (PHS&T)	4
3.3 Configuration Control	4
3.4 Government Furnished Equipment (GFE)/Government Furnished Materiel (GFM)	4
3.5 Contractor Furnished Materiel	5
3.6 Electrostatic Discharge (ESD) Control Program	5
3.7 Electromagnetic Environmental Effects (E <sup>3</sup> ) Procedures	5
3.8 Quality Assurance Provisions	5
3.9 Acceptance	5
3.10 Rejection	5
Appendix A	A

STATEMENT OF WORK FOR THE  
REBUILD of the Radio Frequency Amplifier (AM-6545)

NSN 5996-01-050-5881

1.0 SCOPE. This Statement of Work (SOW) establishes and sets forth tasks and identifies the work efforts that shall be performed by the Contractor (for purposes of this SOW, Contractor is defined as the commercial or government entity performing the REBUILD) in the REBUILD effort of the Radio Frequency Amplifier (AM-6545). This document contains requirements to restore the Radio Frequency Amplifier (AM-6545) to Condition Code "A." Condition Code "A" is defined as "serviceable/issuable without qualification, new, used, repaired or reconditioned materiel which is serviceable and issuable to all customers without limitation or restriction, including materiel with more than six months shelf-life remaining."

1.1 Background. REBUILD is defined as "That maintenance technique to restore an item to a standard as near as possible to original or new condition in appearance, performance, and life expectancy. This is accomplished through a maintenance technique or complete disassembly of the item, inspection of all parts or components, repairs or replacement of worn or unserviceable elements using original manufacturing tolerances and/or specifications and subsequent reassembly of the items."

2.0 APPLICABLE DOCUMENTS. The following documents form a part of this SOW to the extent specified. Unless otherwise specified, the issues of these documents are those listed in the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto which is in effect on the date of solicitation. In the event of conflict between the documents referenced herein and the contents of this SOW, the contents of this SOW shall be the superseding requirement.

2.1 Military Standards

MIL-STD-129	DoD Standard Practice for Military Marking
MIL-STD-2073-1D	DoD Standard Practice for Military Packaging

2.2 Other Government Documents and Publications.

TM-87107B-34/1 W/Chg. 1 and 2	Maintenance Instructions for The Power Amplifier AM-6545 /GRC-193	PCN 184 087106 00
SL-4-07743A/07749A W/Chg. 1 thru 15	Repair Parts List for AN/MRC-138	PCN 124 077430 00
SL-4-07743A/07749A	Changes 16-24	PCN 124 077430 16-24

MI-5820-35/53	Pad Mod for AM-6545	PCN 161 833539 00
MI-87107B-45/1 (MOD)	1A1 Meter Board Mod	PCN 162 871071 00
MI-87107B-45/1 W/Chg. 1	1A1 Meter Board	PCN 162 871071 00
MI-87107B-45/2 W/Chg. 1 thru 4	Power Switch Mod	PCN 162 871092 00
MI-87107B-45/2 W/Chg. 5	Power Switch Mod Ch. 5	PCN 162 871092 05
MI-87107B-45/3	Machining Mod for AM-6545	PCN 162 871093 00
RS-87107B-50/3 w/Chg. 1 thru 2	Depot Maintenance and Rebuild Standard for AM-6545B/GRC-193	PCN 170 080107 00
DOD 4000.25-1-M	MILSTRIP Manual	
TI-5820-25/22	Electromagnetic Environmental Effects Procedures	PCN 168 047801 00
Engineering Drawing 755017A3000 CAGE 80372	Engineering Drawing Package, Amplifier, Radio, Frequency	

Military Handbook (For Guidance)

MIL-HDBK-61	Configuration Management Guidance
-------------	-----------------------------------

2.3 Industry Standards.

JESD625-A	Requirements for Handling Electrostatic-Discharge Sensitive ESDS Devices
ANSI/ISO/ASQC Q9003-1994	Quality Systems-Model for Quality Assurance in Final Inspection and Test

Industry Standard (For Guidance Only)

ANSI/EIA-649	National Consensus Standard for Configuration
--------------	---

## Management

Copies of Military Specifications and Standards are available from the DoD Single Stock Point, Document Automation and Production Service, Building 4/D, 700 Robbins Avenue, Philadelphia, PA. 19111-5094, commercial telephone number (215) 697-2179 or DSN 442-2179 or on the internet at <http://www.dodssp.daps.mil>. Copies of other government documents and publications required by contractors in connection with specific SOW requirements shall be obtained through the Contracting Officer: Contracts Department, (Code 891), P.O. Drawer 43019, 814 Radford Blvd., Marine Corps Logistics Bases, Albany, GA. 31704-3019, commercial telephone number (229) 639-6761 or DSN 567-6761. Copies of engineering drawings, if applicable, shall be obtained from Supply Chain Management Center, Attn: Code 583-1, 814 Radford Blvd., Suite 20320, Albany, Georgia 31704-0320, commercial telephone number (229) 639-6410 or DSN 567-6410.

### 3.0 REQUIREMENTS

#### 3.1 General Tasks. In fulfilling the specified requirements, the Contractor shall:

a. Provide materials, labor, equipment, facilities and missing/repair parts, necessary to inspect, diagnose, restore, test and calibrate the Radio Frequency Amplifier (AM-6545). Upon completion of rebuild, the subject item shall be Condition Code "A".

b. Conduct in-process and final on-site testing for witness by a Marine Corps Systems Command (MCSC) (Code C4I), Albany, Georgia authorized representative.

#### 3.2 Detail Tasks. The following tasks describe the different REBUILD phases of the Radio Frequency Amplifier (AM-6545).

3.2.1 Phase I- Pre-Induction. A Pre-Induction Inspection Analysis shall be performed for each Radio Frequency Amplifier (AM-6545) using the Contractor Facility's diagnosis, inspection and testing techniques to determine extent of work and parts required. These findings shall be annotated on the Pre-Induction Checklist (Appendix A).

3.2.2 Phase II -Rebuild. After Pre-Induction Tests and Inspections have been completed, repair of the Radio Frequency Amplifier (AM-6545) shall be accomplished in accordance with this SOW. Deficiencies noted on the Pre-Induction Checklist (Appendix A) during Phase I shall be repaired/replaced. Components or assemblies shall not be disassembled for replacement of parts unless that part has failed, or the component assembly wherein the part is located is disassembled for repair. Any approved Modification Instructions (MIs) or Engineering Change Proposals (ECPs) not previously applied shall be incorporated.

##### a. Hardware.

(1) Replace broken, unserviceable and/or missing hardware including nuts, bolts, screws, washers, turn lock fasteners, mandatory replacement items, safety and one-time use items, etc. Unserviceable would include any of the above that failed to function properly.

(2) Ensure proper hardware locking devices are present on all moving mechanical assemblies.

(3) Hardware normally supplied with commercial parts shall be used unless specifically prohibited.

### 3.2.3 Phase III - Inspection, Testing and Acceptance.

a. Inspection, Testing and Acceptance of the Radio Frequency Amplifier (AM-6545) shall be conducted in accordance with TM-87107B-34/1 w/Chg. 1 and 2, SL-4-07743A/07749A w/Chg. 1 thru 24, RS-87107B-50/3 w/Chg. 1 and 2, MI-5820-35/53, MI-87107B-45/1(MOD), MI-87107B-45/1, w/Chg. 1, MI-87107B-45/2, w/Chg. 1 thru 4, MI-87107B-45/2, w/Chg. 5, MI-87107B-45/3, DoD 4000.25-1-M, and Engineering Drawing 755017A3000, CAGE 80372.

### 3.2.4 Packaging, Handling, Storage and Transportation (PHS&T)

a. The Contractor shall be responsible for preservation and packaging of items being repaired under the terms of this statement of work. Items scheduled for long-term storage or shipment to overseas destinations shall be preserved and packaged in accordance with the level "A" requirements of MIL-STD-2073-1D, Appendix A., Table A.VI., Electronic Equipment. Items scheduled for domestic shipment for immediate use or short term storage shall be to level "B" requirements.

b. Marking for shipment and storage shall be in accordance with MIL-STD-129.

c. The Marine Corps will provide the contractor with the shipping address(es) for delivery of the repaired equipment. The contractor shall be responsible for arranging for shipment to the pre-designated site(s). The Marine Corps will be responsible for transportation costs associated with shipping the subject equipment to and from the Contractor.

3.3 Configuration Control. The contractor shall apply configuration control procedures to established configuration items. The contractor shall not implement configuration changes to an item's documented performance or design characteristics without prior written authorization. If it is necessary to temporarily depart from the authorized configuration, the contractor shall prepare and submit a Request For Deviation. MIL-HDBK-61 and ANSI/EIA-649 provide guidance for preparing this configuration control document.

3.4 Government Furnished Equipment (GFE)/Government Furnished Materiel (GFM). The Management Control Activity (MCA/Code 573-2) will coordinate Government Furnished Equipment/Government Furnished Materiel (GFE)/(GFM) requests and maintain a central control system on all government owned assets in the contractor's possession. The MCA will

forward a GFE Accountability Agreement to the contractor for signature on an annual basis to establish a chain of custody and identify property responsibilities for Marine Corps assets. The contractor is to acknowledge receipt of GFM to the MCA within 15 days of receipt. (This can be done by mailing (Materiel Management Department, Management Control Activity (Code 573-2) 814 Radford Blvd, STE 20320, Albany, GA 31704-0320) or faxing (commercial 229-639-5498 or DSN 567-5498) a copy of the DD1348).

3.5 Contractor Furnished Materiel (CFM). The contractor may requisition materiel as required in the performance of the SOW through the DoD Supply System. DoD 4000.25-1-M (MILSTRIP) Chapter 11 provides guidance to contractors on the requisitioning process. The contractor's decision to utilize CFM procured from the DoD Supply System shall be based upon cost effectiveness, availability of materiel and the required completion/delivery date.

3.6 Electrostatic Discharge (ESD) Control Program. The contractor shall establish, implement and document an ESD control program following the guidelines provided in JESD625-A. ESD protective measures shall be used during manufacturing, handling, inspection, testing, marking, packaging, storing and transporting ESD sensitive components.

3.7 Electromagnetic Environmental Effects (E3) Procedures. The Contractor shall plan for and use proper (E3) control procedures in the Rebuild process and shall utilize TI-5820-25/22 in conjunction with the detailed requirements specified in this document.

3.8 Quality Assurance Provisions. The Contractor shall provide and maintain a Quality System that as a minimum, adheres to the requirements of ANSI/ISO/ASQC Q9003-1994, Quality Systems-Model for Quality Assurance in Final Inspection and Test. The program shall ensure quality throughout all areas to include processing, assembly, inspection, testing, maintenance and preparation for delivery and shipping. Unless otherwise specified in the contract, the contractor shall be responsible for performance of all inspection requirements. MCSC (Code C4I), Albany, Georgia reserves the right to perform any of the inspections set forth in the contract where such inspections are deemed necessary to assure products and services conform to the prescribed requirements. The Contractor shall provide an Inspection and Test Plan that will ensure the Radio Frequency Amplifier (AM-6545) will meet or exceed the original performance characteristics of the Radio Frequency Amplifier (AM-6545). Inspection Test Plan shall be sent to: Marine Corps Systems Command, (MCSC) Attn: Logistics Management Specialist (Code C4I), 814 Radford Blvd., STE. 20320, Albany, Georgia 31704-0320

3.9 Acceptance. The performance of the Contractor and the quality of work delivered, including all equipment furnished and documentation written or compiled, shall be subject to in-process review and inspection during performance. Inspection may be accomplished in-plant or at any work site or location, and MCSC (Code C4I), Albany, Georgia representative shall be permitted to observe the work or to conduct an inspection. Final inspection and acceptance testing shall be conducted at the Contractor's Facility. Final acceptance shall be conducted on 100 percent of items to verify that the units meet all requirements.

3.10 Rejection. Failure to comply with any of the specified requirements listed herein shall be reason for rejection by MCSC, (Code C4I), Albany, Georgia representative. The Contractor shall, at no additional cost to MCSC, Albany, Georgia, correct the deficiencies and repeat the verification until an acceptable compliance with acceptance test procedures is demonstrated.



**Pre-Induction Checklist**  
**Radio Frequency Amplifier (AM-6545)**

1. Using the following criteria, inspect the items listed below.
- a. Inspect for dirt, dust, sand, etc.
  - b. Inspect for rust and/or corrosion damage.
  - c. Inspect for any physical damage. (cuts, dents, cracks, broken pins, etc.)
  - d. Ensure that all screws, washers, nuts, bolts, etc. are attached.
  - e. Inspect for dry rot on all rubber and plastic components.
  - f. Ensure that all covers and caps are attached.
  - g. Ensure that all knobs, switches and breakers operate freely and properly.

**S - Serviceable****U - Unserviceable****M - Missing**

Remarks:

---

---

---

---

---

---

---

<b>CONTRACT DATA REQUIREMENTS LIST</b> (1 Data Item)						Form Approved OMB No. 1704-0188	
<p>The Public reporting burden for this collection of information is estimated to average 118 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302 and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Printing Contract Officer for the contract/PR No. listed in block 8.</p>							
A. CONTRACT LINE ITEM NO.		B. EXHIBIT		C. CATEGORY: TDP                      TM                      Other XXX			
D. SYSTEM/ITEM Radio Frequency Amplifier (AM-6545)			E. CONTRACT/PR No.		F. CONTRACTOR		
1. DATA ITEM No. A001		2. TITLE OF DATA ITEM Inspection and Test Plan			3. SUBTITLE Quality Control/Assurance and Inspection		
4. AUTHORITY (Data Acquisition Document No.) DI-QCIC-81110			5. CONTRACT REFERENCE Paragraph 3.8		6. REQUIRING OFFICE MARCORSSYSCOM Albany (C4IHF)		
7. DD 250 REQ. DD		9. DIST STATEMENT REQUIRED A		10. FREQUENCY ONE/R		12. DATE OF FIRST SUBMISSION See Blk 16	
8. AFF CODE A		11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION See Blk 16		14. DISTRIBUTION	
16. REMARKS				15. COPIES			
<p>Block 12 - Submit 30 days after contract award by LT. Government requires 60 days to review and comment.</p> <p>Block 13 - Final due 30 days after receipt of Government comments. Submit final plan by DD250.</p> <p>Distribution Statement A: Approved for public release, distribution is unlimited.</p>				a. ADDRESSEE		Draft	
				MCSC Albany (C4I)		0	
Empty space for remarks				FINAL		Reg	
				Repro		0	
15. TOTAL				0		0	
G. PREPARED BY:		H. DATE		I. APPROVED BY:		J. DATE	
		1419-01				14 Nov 01	

17. PRICE GROUP

18. ESTIMATED TOTAL PRICE

[illegible]

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE